#### TITLE

## MANAGING THE BUSINESS OF A MEDICAL SCHEME

This application is a continuation-in-part application of U.S. Application Serial No. 09/265,350 filed March 9, 1999. U.S. 09/265,240 was pending as of the filing date of the present application.

### BACKGROUND OF THE INVENTION

This invention relates to a method of managing the use of a medical scheme by members thereof.

Conventional medical schemes generally do not effectively encourage their members to minimize their medical expenses or to adopt a healthy lifestyle. Instead, members often attempt to draw the maximum possible benefits from their scheme, based on their view that their contributions to the scheme will otherwise be "wasted".

One approach, which has been adopted in an attempt to address this syndrome, is the introduction of savings schemes, in terms of which members claim benefits at a lower rate than normal and accrue funds in a savings account.

It is an object of the invention to provide an alternative and/or additional method of managing the use of a medical scheme, which may be thought of in terms of a traditional indemnity health insurance plan.

# SUMMARY OF THE INVENTION

According to the invention a method of managing the use of a medical scheme by members thereof includes:

defining a plurality of health-related facilities and/or services;

- offering the facilities and/or services to members of the medical scheme;
- monitoring use of the facilities and/or services by each member;
- allocating a credit value to each member according to their use of the facilities and/or services; and
- allocating rewards to members who accumulate credit values exceeding predetermined values.

The South African "Medical Schemes Act, No. 131 of 1998", Chapter 1, Section 1 – Definitions, contains the following definition of the term "business of a medical scheme":

- "...the business of undertaking liability in return for a premium or contribution
  - a) to make provision for the obtaining of any relevant health service;
  - b) to grant assistance in defraying expenditure incurred in connection with the rendering of any relevant health service; and
  - c) where applicable, to render a relevant health service, either by the medical scheme itself, or by any supplier or group of suppliers of a relevant health service or by any person, in association with or in terms of an agreement with a medical scheme;"

Accordingly, as used in the present application, "business of a medical scheme", or "medical scheme" shall include the substance of the definition set forth in the South African Medical Schemes Act, in particular the definition of Section 1 (b) above. A medical scheme according to this definition will be understood by those skilled in the art as being equivalent to a traditional indemnity health insurance plan.

The plurality of health-related facilities and/or services may include membership of health clubs, gymnasiums or fitness programs, weight loss programs or programs to quit smoking, for example.

The facilities and/or services may further include predetermined preventive medical procedures and a medical advice service, for example.

These facilities and/or services may also include predetermined procedures such as advance pre-authorization of hospitalization or treatment, registration for electronic funds transfer, or compliance with preferred procedures.

The rewards allocated to a member are preferably linked to the amount of the member's annual claims or whether or not the member has been hospitalized in a predetermined period of time.

Alternatively, the rewards allocated to a member may include prizes allocated on the basis of a draw, the magnitude of a member's credit value being related to the chance of winning the draw; access to health-related facilities and/or services for family members; decreased premium payments according to a predetermined scheme; and increased benefit payments according to a predetermined scheme.

Preferably, the reward allocated to the member is not actually given to the member before a predetermined period has passed or the member has attained a predetermined age, and the reward will be forfeited by the member if they are not still a member of the medical scheme after the predetermined period has passed or after the member has attained the predetermined age.

# BRIEF DESCRIPTION OF THE DRAWINGS

Figures 1 to 12 are diagrams illustrating the operation of the method of the invention.

# DESCRIPTION OF AN EMBODIMENT

The method of the invention aims to provide incentives for medical scheme members to minimize medical expenses both by responsible use of the benefits of the scheme, and also by offering positive incentives to members to adopt a healthy lifestyle and to make use of preventative procedures and pre-treatment medical advice facilities.

The operation of the invention is illustrated graphically in the flowcharts of Figures 1 to 12. Figure 1 shows the procedure followed by a new employer joining a medical scheme (i.e. traditional indemnity health insurance plan) that utilizes the present invention. (In the specification, reference is made to the "Vitality" program of the applicant. It should be appreciated that the described scheme may not correspond exactly to medical schemes operated by the applicant from time to time.)

The procedure makes provision for the employer to determine at what level membership of the scheme will be made available to employees, and also for employees to opt into or out of the scheme.

Figure 2 shows the process followed by an employer from time to time (typically annually) in deciding whether to opt into or out of the scheme and, in the former case, to decide whether to make membership compulsory or voluntary.

The method of the invention rewards members for utilizing approved health clubs/gymnasiums or other fitness schemes. In the present example, members are rewarded for utilizing such facilities as Health and Racquet Clubs, Run/Walk for Life, Smokenders and Weigh-Less. New scheme members belonging to these organizations are able to claim credit points as indicated in Figure 3. Figure 4 shows the procedure followed by a member to join a Health and Racquet Club and to record his or her membership with the scheme. Figure 5 is a similar diagram, showing the procedure followed when the member joins Run/Walk for Life.

Figures 6 and 7 show the procedure followed by the member when visiting a Health and Racquet Club or Run/Walk for Life, ensuring that a record is made of the visits. Figures 8 and 9 show the procedure to be followed in the event that membership of a Health and Racquet Club or Run/Walk for Life lapses and must be re-activated.

Joining and attending Health and Racquet Clubs or Run/Walk for Life results in allocation of credit points (referred to as "Vitality points") which are allocated as indicated in Appendix A. As mentioned above, other health and fitness schemes will also earn Vitality points. For example, the Smokenders smoking cessation program is available, subject to payment of an activation fee, to all Vitality principal members. Spouses and other dependents of Vitality members may be eligible for Smokenders programs for no charge, or at a rate below the standard market rate.

Smokers who successfully quit smoking through Smokenders will earn Vitality points on submission of a non-smoker declaration, counter-signed by a Smokenders official. Points are earned, for example, as follows:

Per principal or spouse submitting a declaration – 5,000 points

Points can be re-earned each Vitality year on submission of a new declaration.

A non-smoking Vitality principal member and/or spouse will earn 5,000 Vitality points on submission of a non-smoker declaration and agreement to a possible urine nicotine test. Points can be re-earned each Vitality year on submission of a new declaration.

Another example of a health scheme available for members is the Weigh-Less weight reduction program. This is available, subject to payment of an activation fee, to all Vitality principal members. This Weigh-Less membership is for the period until the member reaches their goal weight, as long as at least one session per month is attended.

A lapse of no longer than 6 months will require a further payment of an activation fee to "reactivate" this facility. A lapse of longer than 6 months can be renewed at the rate below the standard market rate.

Spouses and other dependents of Vitality members may be eligible for Weigh-Less programs for no charge, or at a rate below the standard market rate.

Vitality members who have successfully reached their goal weights through Weigh-Less will be presented with a certificate to this effect. Submission of this certificate will earn Vitality points, for example, as follows:

Per member or dependent – 5,000 points

To an annual maximum of -10,000 points

Points can be re-earned each Vitality year on submission of a new certificate.

A Vitality member or dependent who is at their goal weight will earn Vitality points on submission of a Weigh-Less certificate stating this. These certificates are available from any branch of Weigh-Less, at a nominal fee payable by the member. Points can be re-earned each Vitality year on submission of a new certificate.

In addition, members are encouraged to make use of a medical advice line and to make use of preventive care options in order to prevent or minimize medical problems that might otherwise only be detected later, with corresponding higher medical costs. Examples of such preventive care options are as follows:

### **MMP** Registration

2,500 Vitality points, for example, will be awarded when a female member joins a Managed Maternity Program.

# Completed series of childhood vaccinations

5,000 Vitality points, for example, will be awarded when a child of a Vitality member has completed their series of vaccinations. This will be at around age 18 months. Points are only awarded during the Vitality year in which the series of vaccinations was completed. The member claims these points by submission of a copy of their clinic card, detailing the completed series of vaccinations.

### Blood donation

2,000 Vitality points per adult, for example, will be awarded each year that the adult is both a registered blood donor and donates at least one pint of blood. The member claims these points by submission of proof of donation (e.g., a copy of their blood donor card issued).

# Pap smears

5,000 Vitality points, for example, per adult woman (16 years  $\pm$ ) will be awarded each year that they have a pap smear. These points can be automatically awarded by interface with the claims system of the medical treatment program, based on practice type and tariff code.

Vitality points can also be awarded for following preferred procedures, such as preauthorization of medical treatment. Examples of the above are indicated in Figure 10.

Finally, Figures 11 and 12 illustrate the procedure followed when the employer/employee leaves the medical scheme, or when the principal member of the scheme dies.

The method of the invention also awards members for appropriate use of their medical scheme. However, the Payback Benefit is a benefit provided by Vitality, not the medical scheme, and is therefore not a no-claim bonus paid out of a medical scheme.

Although Vitality uses medical scheme contributions as the basis for this benefit, the payback is not really a payback of medical scheme contributions, but rather a Vitality benefit that happens to be based on the contributions paid into the medical scheme.

This aspect of the method of the invention will now be described with reference to the applicant's "Discovery" medical aid program. It will be appreciated that this aspect of the invention could be adapted to be used with any other medical scheme.

# 1. THE VITALITY PAYBACK BENEFIT

This benefit, located in the "Appropriate use of Medical Aid's Benefits" tier of Vitality has two components.

## 1.1 The Above Threshold Benefit Payback

# 1.1.1 Description

This benefit pays back a portion of the member's Discovery Above Threshold Benefit (ATB) contributions if they have five complete and consecutive calendar years without claiming above their threshold. This threshold is a predetermined amount set by the medical scheme, and if the medical scheme member's annual claim does not exceed this threshold, the member will qualify for the payback.

The portion of each year's contribution paid back at the end of the five-year period will depend on the member's Vitality status at the end of that specific calendar year, based on the following table:

Status at year end	Payback %
Blue	5%
Bronze	20%
Silver	50%
Gold	100%

#### 1.1.2 Example

Assuming a member's ATB contribution is R2 000 per annum and ignoring medical inflation, the ATB Payback works as follows for given ATB claiming pattern and Vitality statuses:

Year	ATB	Vitality	Payback	Year's	Total Potential
	Claim	Status	%	Payback	Payback
1	N	Blue	5%	100	R100 at end year 5
2	N	Blue	5%	100	R200 at end year 5
3	N	Bronze	20%	400	R600 at end year 5
4	Y	Blue	-	0	R0
5	N	Silver	50%	1000	R1000 at end year 9
6	N	Silver	50%	1000	R2000 at end year 9
7	N	Bronze	20%	400	R2400 at end year 9
8	N	Blue	5%	100	R2500 at end year 9
9	N	Blue	5%	100	R2600 paid out*
10	N	Silver	50%	1000	R1000 at end year 14

<sup>\*</sup>In this example, this R2600 is the only amount actually paid to the member.

# 1.1.3 <u>Timing</u>

The calculation of each year's contribution to the ATB payback is based on the previous calendar year's ATB claiming status and Vitality status (i.e. Vitality status as at 31 December).

The actual payback is made shortly after the fifth consecutive ATB claim-free calendar year.

# 1.1.4 Some specific rules:

- 1.1.4.1 Only complete claim-free calendar years count. So, for example, a member joining in February 1999 only starts being "monitored for ATB payback on 1 January 2000.
- 1.1.4.2 A new five-year period begins on 1 January of the year of a payback or on 1 January of the year following an ATB claim.

1.1.4.3 In order to receive this benefit, the member must be a Discovery Vitality member following five complete, consecutive ATB claim-free calendar years and must have had uninterrupted membership of Vitality throughout the five year period.

## 1.1.5 Communication

Each Vitality statement sent to the member will detail the accumulated potential ATB payback, for example as follows:

Potential ATB payback, should you make no ATB claims up until the end of [yyyy]:

Past years R
This year ([status] % of ATB prem.) R
Total potential payback R on [dd.mm.yy]

Calculations for the above are as follows:

The calculation for "past years" is an exact one, based on actual ATB contributions and Vitality statuses.

The calculation for "this year" is equal to ATB contribution paid to date this year x 12 - n n x [current Vitality status] % where n is the number of months' contributions paid during this calendar year.

# 1.2 The Managed Benefits Payback

### 1.2.1 Description

This benefit pays back at age 65 (or any other pre-selected age), a portion of the member's Discovery Managed Benefits (i.e. Hospital, Insured Procedures and Chronic Illness Benefits) contributions for a given year if they claim from neither their Hospital Benefit, nor their Insured Procedures Benefit, nor ISOS during that year. Chronic Illness Benefit claims are ignored for this purpose.

The payback will benefit from the capital growth of, for example, unit trusts from the date accrued up until age 65.

The portion of each year's contribution paid back at age 65 is dependent on the member's Vitality status at the end of that calendar year, based on the following table:

Status at year end	<u>Payback</u>
Blue	5%
Bronze	20%
Silver	50%
Gold	100%

Although these are identical to the ATB payback percentages, this may be changed.

# 1.2.2 Unit Trust notional allocations

On a pre-selected day e.g., 30 April of each year, if there were no Hospital, Insured Procedures Benefit or ISOS claims during the previous calendar year, the relevant proportion of that year's Managed Benefits contribution are notionally allocated in equal proportions to selected unit trusts. For example:

Define P = Rand amount to be notionally allocated to unit trusts

SA = Selling price of unit trust A on that 30 April

SB = Selling price of unit trust B on that 30 April

SC = Selling price of unit trust C on that 30 April

NA = Number of units notionally purchased in unit trust A on that 30 April

NB = Number of units notionally purchased in unit trust B on that 30 April

NC = Number of units notionally purchased in unit trust C on that 30 April

Then NA = 1/3\*P/SA

and NB = 1/3\*P/SB

and NC = 1/3\*P/SC

NA, NB and NC are stored (to four decimal places) in respect of each member and increased each year (on 30 April) by the number of new units notionally purchased.

SA, SB and SC will therefore be inputs required by the system on 30 April of each year.

# 1.2.3 Payback at 65

On 31 March of the year during which the member turns 65 (this is the definition of age 65 for purposes of this example of this benefit), the member will be paid out their Managed Benefit Payback as follows:

RA = Repurchase price of unit trust A on that 30 April

RB = Repurchase price of unit trust B on that 30 April

RC = Repurchase price of unit trust C on that 30 April

The payout is now equal to:

$$NA*RA + NB*RB + NC*RC$$

plus the Rand amount of the Managed Benefits Payback "earned" in the previous calendar year, (i.e. the last year's Managed Benefits Payback does not benefit from capital growth of unit trusts).

# 1.2.4 Example

Assuming a member's Managed Benefits contribution is R6 000 per annum and ignoring medical inflation, the Managed Benefits Payback works as follows for given

claiming pattern and Vitality statuses. For simplicity, the illustration is for someone aged 59 at entry.

Assume that Unit prices (in Rands) are as follows on 30 April of each year:

Year	SA	RA	SB	RB	SC	RC
1	1.10	1.00	2.20	2.00	3.30	3.00
2	1.21	1.10	2.42	2.20	3.63	3.30
3	1.33	1.21	2.66	2.42	3.99	3.63
4	1.46	1.33	2.93	2.66	4.39	3.99
5	1.61	1.46	3.22	2.93	4.83	4.39
6	1.77	1.61	3.54	3.22	5.31	4.83
7	1.95	1.77	3.89	3.54	5.84	5.31

Then the paybacks are calculated as follows:

Year	Age	HB/IPB	Vitality	Payback	Year's	New U	Inits	Tota	al Ur	iits
	0	Claim	Status	%	Payback	A B	C	NA	NB	NC
1	59	N	Blue	5%	300	91 45	30	91	45	30
2	60	N	Blue	5%	300	83 41	28	17	86	58
3	61	Y	Bronze	-	-		-	17	86	58
4	62	N	Silver	50%	3000	685 34	1 228	859	427	286
5	63	Y	Blue	-	-		-	859	427	286
6	64	N	Bronze	20%	1200	Not allo	ocated	859	427	286

The total payout on 30 April of year 7 is then calculated as

$$859 * 1.77 + 427 * 3.54 + 286 * 5.31 + 1200 = R5751$$

### 1.2.5 Some specific rules

- 1.2.5.1 Only complete claim-free calendar years count.
- 1.2.5.2 No Managed Benefit Paybacks are made after age 65. So, any member entering after 1

  January of the year during which they turn 64 is not eligible for this benefit.
- 1.2.5.3 In order to receive this benefit, the member must be a Discovery Vitality member on the 30 April (in this example) of the year during which they turn 65.
- 1.2.5.4 A member leaving Discovery and/or Vitality forfeits their entire payback for the first period of membership unless contributions are back-paid to the date of leaving.

## 1.2.6 Communication

Each Vitality statement sent to the member will detail the total number of units in each of the unit trusts as follows:

Unit trust	Numl	per of units	Current market value		
Α	NA	NA	* RA		
В	NB	NB	* RB		
C	NC	NC	* RC		
Total					

## 1.3 Some General Rules (applicable to both ATB and MB Paybacks)

## 1.3.1 Change of employment

A member who changes employer, but remains on Discovery, does not forfeit any accumulated paybacks, provided the same Discovery membership number is retained.

### 1.3.2 Divorce

The accumulated payback benefits are retained by the principal member.

# 1.3.3 <u>Death</u>

If there is no spouse on the membership, any accumulated paybacks are lost. If there is a spouse, the spouse becomes the principal member and the accumulated paybacks are retained. The Managed Benefits Payback will now be paid out when the spouse reaches 65. If at the time of the principal's death, the spouse is over 65, the Managed Benefits Payback is forfeited.

### 1.3.4 Member movements

Member movements will have an effect on the Payback Benefit. For example, if a child is added with effect from 1 September, then the relevant contribution in respect of that child is included for the 4 months of that year in the calculation of the potential payback. Similarly, if a member is on one plan for 7 months and another plan for 5

months, the contribution counting towards the potential payback will be a combination of 7 months on the first plan and 5 months on the second plan.

It will be appreciated that numerous additions and variations to the above-described method are possible without deviating from the inventive concept. However, the essence of the invention is that a range of activities and a system of incentives are provided which actively encourage members of a medical scheme to adopt a healthy lifestyle and to act responsibly in managing their own health, by offering prizes and other rewards.